

# INDEX TO TECHNICAL NEWS BULLETIN, 1932. NUMBERS 189 to 200, INCLUSIVE

A	Page
Abacá fiber, standards for.....	128
Accelerometers, earthquake.....	41
Acetates, alkali zinc uranyl, optical and crystallographic properties of.....	114
Acidity of soils, determination of total.....	32
Acoustical Society of America, meeting of.....	57
Aerodynamical characteristics of automobile models.....	88
Alleron displacement, effect of, on wind characteristics.....	9
Allerons, rectangular, rolling, yawing, and hinge moments produced by.....	9
Air permeability of paper.....	56
Air speed, measurement of, fluctuations of, in turbulent flow.....	30
Aircraft, blind landing of, radio system for.....	39
Aircraft instruments, effect of temperature on elastic properties of metals used for.....	29
Aircraft power plant instruments.....	87
Aircraft propellers, vibrations of.....	53
Aircraft radio direction finder.....	123
Airplane engines, mufflers for.....	8
Alcohol as motor fuel.....	27
Alcohol-gasoline blends as compared with gasoline in fuel economy.....	91
Alcohol, miscibility of gasoline with.....	63
Aldonic acids and their lactones, preparation and properties of.....	113
Alkali zinc uranyl acetates, optical and crystallographic properties of.....	114
Alkalinity of lime solutions.....	87
Altitude, effect of, on gas appliances.....	41
Aluminum in nitriding steels, determination of.....	29
American Physical Society, meeting of.....	57
Ampere, absolute determination of.....	42
Amplifiers, sensitive pulse, elimination of background noise in.....	15
Angstrom, the.....	97
Announcements of new publications, discontinuance of.....	79
Archives Building, construction of.....	21
Arlington Memorial Bridge, tests of reinforced-concrete arch of.....	115
Artichokes, Jerusalem-, extraction of levulose from.....	78
Austenitic steel, magnetic balance for the inspection of.....	29
Automobile models, aerodynamic characteristics of.....	88
Automobiles force of side winds on.....	115
Automobiles, streamlining.....	61
Aviation fuels, detonation rating of.....	78

B	Page
Balances, laboratory, magnetic damping for.....	1
Batteries, storage, grid composition, and sulphation of.....	63
Bearing alloys, white-metal, properties of.....	5
Bearing bronze, tin-free leaded.....	52
Blind-landing of aircraft.....	39, 53
Books, deterioration of, in libraries.....	66
Brick, fire-clay, Federal specification for.....	34

	Page
Bricks, building, properties of.....	68
Brickwork, strength of steel columns incased in.....	6
Brush discharge in air affects en- gine performance.....	40
Building bricks, properties of.....	68
Burners for slow-burning gases.....	42

C	Page
Calcium salts, basic, preparation and properties of.....	113
Calorimeter for heats of fusion.....	103
Calorimeter, Thomas recording gas.....	3
Carbon dioxide, thermal properties of.....	28
Caseins, commercial, properties and coating qualities of.....	22
Casting conditions, effect of, on properties of gray cast iron.....	64
Cement, portland, determination of magnesia in.....	68
Cement, portland, specific surface of.....	72
Cements, high early strength.....	45
Cements, masonry, workability of.....	35
Ceramic materials, volume changes in, due to weathering.....	19
Chimney blocks, hollow clay radial, specifications for.....	45
China clays, composition of American and English.....	126
Chromium, deposition of from solutions of chromic and chromous salts.....	105
Cigarettes, fire hazard tests with.....	117
Clay in concrete.....	4
Clay materials, fired, glass phase in.....	51
Clays, china, comparison of American and English.....	126
Clays, English china, some properties of.....	95
Clays, English china, summary of investigation.....	3
Clays for saggers.....	71
Clays, Ohio.....	34
Clays, Ohio heavy, glass phase in.....	69
Cloth, effect of weave on properties of.....	107
Cloth, evaluation of "handle" and "drape" of.....	55
Coils, attraction between, in current balance.....	111
Color of manila rope.....	34
Colorimetric analysis, optically stable sugar solutions for.....	32
Columbian, thermal expansion of.....	84, 96, 103
Columns protected with gypsum, fire tests of.....	67
Columns, steel, incased in brickwork.....	6
Commercial standards for fourdrinier wire cloth.....	130
Commercial standard for fuel oils revised.....	88
Commercial standard for gold-filled and rolled gold plate articles.....	107
Commercial Standards Monthly, discontinuance of.....	79
Commercial Standards Monthly, Industrial Standardization and.....	101
Compressometer, the.....	55
Concrete, clay in.....	4
Containers, glass, simplified practice recommendation for.....	100
Copper wire nails, simplification of.....	118

	Page		Page
Counters, Geiger-Müller, improvement in.....	15	Foundry sands, properties and testing of.....	45
Creep in nickel-chromium iron alloys at high temperatures.....	65	Fourdrinier wire cloth, commercial standard for.....	139
Current balance, attraction between coils of.....	111	Fuel economy with gasoline and alcohol-gasoline blends.....	91
Current transformers, equipment for testing.....	76	Fuel oils, revised commercial standards for.....	85
Curtains, theater, proscenium, fire tests of.....	106		
		G	
D		Gage blanks, American standard for.....	118
Dampness in masonry walls above grade.....	94, 107	Gage, micrometer, for rubber specimens.....	54
Detonation rating of aviation fuels.....	78	Gas appliances, effect of altitude on.....	41
Developers, photographic, comparison of.....	97	Gases, slow-burning, burners for.....	42
Dickite, kaolinite and, synthesis of.....	18, 36	Gasoline and alcohol-gasoline blends, comparative fuel economy with.....	91
Diesel fuels, automotive, vapor pressure of.....	40	Gasoline, gum content of.....	85
Direction finder, radio, for use on airplanes.....	83	Gasoline, lubricated.....	28
Distilling column, improved chain-packed.....	75	Gasoline, miscibility of, with alcohol.....	63
Drawing inks, colored waterproof.....	32	Geiger-Müller counters, improvement in.....	15
Duck, waterproof, accelerated aging test for.....	34	Glass containers, effect of, on electromotive force of Weston normal cells.....	82
		Glass, determination of soda in.....	68
E		Glass, optical, viscosity of.....	72
Earthquake accelerometers.....	41	Glass phase in fired clay materials.....	51
Educational courses at the Bureau of Standards, 1932-34.....	100	Glass phase in Ohio heavy clays.....	69
Electric railway motor and controller parts, packaging of.....	120	Glass, pyrex, effect of heat treatment on expansion of.....	126
Electrical characteristics of rubber-sulphur compounds.....	81	Glasses, soda-lime-silica, composition and thermal expansion of.....	103
Electrical units, international.....	13, 121	Gold-filled and rolled gold plate articles, commercial standard for.....	107
Electricity and light, international action on, units in.....	25, 121	Greases, stability of.....	19
Electrolysis, stray-current.....	46	Grid composition and sulphation of storage batteries.....	63
Enamels, ground-coat, factors determining expansivity of.....	44	Ground-coat enamels, influence of composition on fusion properties of.....	19
Enamels, ground-coat, influence of composition on fusion properties of.....	19	Gum content of gasoline.....	85
Enamels, stresses in.....	72	Gypsum, columns protected with, fire tests of.....	67
Enamels, vitreous, thermal expansion of.....	104	Gypsum lath partitions, fire tests of.....	20, 94
Encyclopedia of specifications for metals and metal products.....	64		
End standards, quartz and steel, comparison of.....	14	H	
Engine cylinder, infrared radiation from.....	28	Heating installations, domestic, fire hazard of.....	93
Engine performance, brush discharge in air effects.....	40	Heats of fusion, a simple calorimeter for.....	103
Engine performance, effect of jacket water temperature on.....	114	Hemimellitene, isolation of, from petroleum.....	112
English china clays, some properties of.....	95	Humidity control in lithographic plants.....	33
English china clays, summary of investigation.....	3	Humidity, relative, nomogram for determining.....	129
		Hydraulic laboratory research.....	49
F		Hydrocarbon, rubber, pure ether-soluble, preparation and crystallization of.....	43
Field intensities, radio, a continuous recorder of.....	99	Hydrocarbons, pure, spectral differentiation of.....	112
Fire-clay brick, Federal specifications for.....	34	Hypersensitization of photographic emulsions.....	16
Fire department, structural conditions as they affect the work of a.....	116		
Fire hazard of domestic heating installations.....	93	I	
Fire hazard tests with cigarettes.....	117	Industrial Standardization and Commercial Standards Monthly.....	101
Fire tests of columns protected with gypsum.....	67	Industrial truck tires, revised simplified practice recommendation for.....	118
Fire tests of gypsum lath partitions.....	20, 94	Infrared wave length standards.....	42
Flexometer, the.....	55	Inks, colored, waterproof drawing.....	115
Flint and feldspar in whiteware, effects of particle size of.....	96	Inks, new circular on.....	32
Floor tiles, natural stone, abrasive resistance of.....	50	Instruments, aircraft power plant.....	87
Floors, care of.....	95	Interference method of measuring thermal expansion.....	2
Floors, wear of.....	115	International Committee and General Conference on Weights and Measures.....	121
Formates, normal, of some group II metals.....	85	International comparison of temperature scales.....	75

	Page
International electrical units.....	13, 121
Ionosphere heights, a multi-frequency automatic recorder of.....	104
Ionosphere, virtual heights of.....	77
Iron-carbon oxides, the system liquid.....	106
Iron, gray cast, effect of casting conditions on properties of.....	64
Isotopic composition of water from natural sources, variation in.....	81
Isotopic fractionation of water.....	103

J

Jacket water temperature, effect of, on engine performance.....	114
Jerusalem-artichokes as a source of levulose.....	73
Jet propulsion.....	10

K

Knollinite and dickite, synthesis of.....	18, 36
Knock in engines as induced by ozone.....	92
Krypton, the second spectrum of.....	96

L

Lacquer-coated resistors of high resistance.....	98
Lactones, aldonic acids and, preparation and properties of.....	113
Landing aids, airplane, radio system of.....	105
Lathe cutting conditions, effect of, on carbon and alloy steels.....	6
Leather, hydrolysis of, by sulphuric acid, influence of sodium chloride and magnesium sulphate on.....	33
Leather, vegetable tanned, influence of pH on the deterioration of, by sulphuric acid.....	43
Levulose, extraction of, from Jerusalem-artichokes.....	73
Levulose, stability of, in aqueous solutions of varying acidity.....	113
Libraries, deterioration of books in.....	66
Libraries, preservation of records in.....	117
Library air, removal of sulphur dioxide from.....	129
Light, international units of electricity and.....	25, 121
Lightning, protection against.....	31
Lime, hydrated, and diatomaceous silica, reaction between.....	4
Lime, hydrated, determination of particle size of.....	113
Lime solutions, alkalinity of.....	86
Lithographic papers, effect of temperature on.....	56
Lithographic papers sensitive to atmospheric humidity.....	3
Lithographic plants, humidity control in.....	33
Low-frequency radio receiving measurements at the Bureau of Standards, 1931-32.....	54
Lubricants, extreme pressure.....	18, 93, 114
Lubricated gasoline.....	28

M

Magnesia, determination of, in portland cement.....	68
Magnetic balance for the inspection of austenitic steel.....	29
Magnetic damping for laboratory balances.....	1
Manila rope, color of.....	34, 127
Masonry cement, studies of.....	50
Masonry cements, workability of.....	35
Masonry walls, dampness in, above grade.....	94, 107
Mesitylene, isolation of, from petroleum.....	112
Metals and metal products, encyclopedia of specifications for.....	64

	Page
Metals used for aircraft instruments, effect of temperature on elastic properties of.....	29
Meter, definition of, in wave lengths of light.....	121
Meters, prototype, thermal expansion of.....	121
Micrometer gage for rubber specimens.....	54
Mineral aggregate production screens, wire diameters for.....	99
M.I.T. paper folding tester.....	88
Moisture expansion of whiteware, measurement of.....	72
Motor fuel, alcohol as.....	27
Mufflers for airplane engines.....	8

N

Nails, copper wire, simplification of.....	118
National Conference on Weights and Measures.....	57
National Screw Thread Commission, revised report of.....	131
Night effects in radio range-beacon reception, elimination of.....	7
Nitriding steels, determination of aluminum in.....	29
Noise, elimination of background, in sensitive pulse amplifiers.....	15

O

Ohio heavy clays, glass phase in.....	69
Ohm, absolute determination of.....	42
Olivine as a refractory.....	127
Optical and other properties of the normal formates of some group II metals.....	85
Oxides, iron-carbon, the system liquid.....	106
Ozone, effect of, on engine knock.....	92

P

Packaging of electric railway motor and controller parts.....	129
Paints, varnishes, and containers, simplified practice recommendation for.....	99
Palladium compounds, ignition of.....	86
Paper, accelerated aging test for.....	129
Paper, air permeability of.....	56
Paper, basic sheet sizes of, simplified practice recommendation for.....	130
Paper folding tester, M.I.T.....	88
Papers, lithographic, effect of temperature on.....	56
Papers, lithographic, sensitive to atmospheric humidity.....	3
Papers, sulphite bond, improvement of.....	74
Particle size, determination of, by sedimentation method.....	113
Partitions, gypsum lath, fire tests of.....	20
Permanent writing ink.....	118
Petroleum, isolation of constituents of.....	112
Phase rule diagrams, compilation of.....	86
Philippine Island Government standard for abaca fiber.....	128
Photoclastic study of rubber.....	55
Photographic developers, comparison of.....	97
Photographic emulsions, mechanism of hypersensitization of.....	16
Photographic emulsions, sensitization by sulphites.....	124
Photometry, International Advisory Committee on.....	121
Platinum-rhodium alloys, dissolving for analysis.....	126
Platinum-rhodium alloys, thermoelectric properties of.....	29
Platinum to platinum-rhodium thermocouples, reference tables for.....	17

	Page		Page
Portland cement, determination of magnesia in.....	68	Saturation scale for yellow colors.....	16
Portland cement, specific surface of.....	72	Screw Thread Commission, National, revised report of.....	131
Potato starch size, consistency of.....	128	Sedimentation method for determining particle size.....	113
Potentiometer, a specialized, for comparing standard cells.....	82	Side winds, force of, on automobiles.....	115
Potentiometer, multiple-range, for measuring small temperature differences.....	2	Silica, diatomaceous, and hydrated lime, reaction between.....	4
Potter's flint and feldspar, effects of particle size of, in whiteware.....	96	Silicon, red and infrared arc spectrum of.....	125
Prism surfaces, permissible curvature of, and inaccuracy of collimation in refractometry.....	75	Silk and wool, combination of, with positive and negative ions.....	33
Propellers, aircraft, vibrations of.....	53	Silver, freezing temperature of.....	52
Proscenium curtains for theaters, fire tests of.....	106	Simplified practice recommendation covering glass containers.....	100
Pseudocumene, isolation of, from petroleum.....	112	Simplified practice recommendation covering paints, varnishes and containers.....	99
Psychrometry, improvements in.....	16	Simplified practice recommendation covering wire diameters for mineral aggregate production screens.....	99
Pyrex glass, effect of heat treatment on expansion of.....	126	Simplified practice recommendation for basic sheet sizes of paper.....	130
Q		Soda, determination of, in glasses containing relatively large amounts of potash.....	93
Quartz and steel end standards, comparison of.....	14	Soda-lime-silica glasses, composition and thermal expansion of.....	103
R		Soils acidity.....	32
Radiation, infrared, from an engine cylinder.....	28	Solar eclipse radio observations.....	123
Radiation, recomparison of primary standards of.....	14	Solar ultraviolet radiation, on sea and land.....	2
Radiobeacons, improved antenna system for.....	78	Spark test, utility of, as applied to commercial steels.....	106
Radio direction finder, aircraft.....	83	Specific volumes of saturated vapors.....	112
Radio field intensities, a continuous recorder of.....	99	Specifications for metals and metal products, encyclopedia.....	94
Radio receiving measurements, low frequency, at the Bureau of Standards, 1931-32.....	54	Spectral differentiation of pure hydrocarbons.....	112
Radio observations, solar eclipse.....	123	Standard cell comparator.....	82
Radio range-beacon reception, elimination of night effects in.....	7	Standard samples, new list of.....	36
Radio range-beacon system, course and quadrant identification with.....	98	Starch size, sweetpotato, consistency of.....	128
Radio system for blind landing of aircraft.....	39	State utility commission engineers, 1933 conference of.....	76
Radio system of landing aids, performance tests of.....	105	Steam, high pressure, properties of.....	17
Radio transmissions of standard frequency, change in schedule of.....	31	Steel, austenitic, magnetic balance for the inspection of.....	29
Radioactive materials, improved instrument for measuring.....	54	Steels, carbon and alloy, effect of lathe cutting conditions on.....	6
Recorder, multi-frequency, automatic, of ionosphere heights.....	104	Steels, commercial, utility of spark test as applied to.....	106
Records, preservation of library.....	117	Stone floor tiles, natural, abrasive resistance of.....	50
Refractive index of rubber, effect of vulcanization on.....	66	Storage batteries, grid composition and sulphation of.....	63
Refractometry, permissible curvature of prism surfaces and inaccuracy of collimation in.....	75	Storage of Government records.....	21
Refractories, thermal dilatation of, up to 1,800 C.....	19	Stray current electrolysis.....	46
Refractory, olivine as a.....	127	Streamlining automobiles.....	61
Resistors, lacquer-coated.....	98	Structural conditions as they affect the work of a fire department.....	116
Rhodium-platinum alloys, dissolving, for analysis.....	126	Sugar, refined, tests of, at Chicago.....	107
Rolling, yawing, and hinge moments produced by rectangular airfoils.....	34, 127	Sugar solutions, optically stable, for colorimetric analysis.....	32
Rope, manila, color of.....	34, 127	Sulphite bond papers, improvement of.....	74
Rubber, hydrocarbon, pure ether-soluble, preparation and crystallization of.....	43	Sulphur dioxide, removal of, from library air.....	129
Rubber, photoelastic study of.....	55	Sulphuric acid, effect of, on vegetable-tanned leather.....	43
Rubber, refractive index of, effect of vulcanization on.....	66	Sulphuric acid, hydrolysis of leather by.....	33
Rubber specimens, screw micrometer gage for.....	54	Sulphuric acid solutions, viscosity of.....	63
Rubber-sulphur compounds, electrical characteristics of.....	81	T	
S		Temperature differences, measuring small, with multiple-range potentiometer.....	2
Saggers, clays for.....	71	Temperature, international scale of.....	121
Sands, foundry, properties and testing of.....	45	Temperature scales, international comparison of.....	75
		Textile materials, qualitative and quantitative analyses of.....	66

Textile	
Textile	
Teat	
tests	
Therm	
up to	
Therm	
meth	
Therm	
Therm	
enam	
Therm	
inum-r	
Thoma	
Files	
resis	
Tin-fre	
Tires,	
prac	
Transf	
for	
Turbul	
tust	
Turbu	
omm	
Ultras	
and	
Utility	
ence	
Vapor	
Vapor	
fuel	
Vapor	
of -	
Viscos	
Viscos	
Vitreo	
of -	
Walls	
Water	
tion	

Page		Page		Page
	Textile shrinkage, standards for----	128	Water, isotopic fractionation of----	103
16	Textile test methods-----	68	Waterproofed duck and similar fabrics, accelerated aging test for----	34
	Theater proscenium curtains, fire tests of-----	106	Water vapor, atmospheric, nomogram for determining pressure of-----	129
131	Thermal dilatation of refractories up to 1,800° C-----	19	Wavelength standard, infrared-----	42
113	Thermal expansion, interference method of measuring-----	2	Wear of floors-----	116
115	Thermal expansion of columbium 84, 96, 103		Weathering, volume changes in ceramic materials produced by-----	10
4	Thermal expansion of vitreous enamels-----	104	Weave, effect of, on properties of cloth-----	107
125	Thermocouples, platinum to platinum-rhodium, reference table for-----	17	Weights and Measures, International Committee and General Conference on-----	121
33	Thomas recording gas calorimeter-----	3	Weights and measures, International meetings on-----	99
52	Tiles floor, natural stone, abrasive resistance of-----	50	Weights and Measures, National Conference on-----	57
100	Tin-free leaded bearing bronze-----	52	Weston normal cells, effect of glass containers on electromotive force of-----	82
99	Tires, industrial truck, simplified practice recommendation for-----	118	White-metal bearing alloys, properties of-----	5
	Transformers, current, equipment for testing-----	76	Whiteware, effect of varying particle size in-----	51
99	Turbulent flow, measurement of fluctuations of air speed in-----	30	Whiteware, moisture expansion of-----	72
130	Turnbuckles, simplified practice recommendation for-----	118	Wing characteristics, effect of alleron displacement on-----	89
	U-----		Wire diameters for mineral aggregate production screens, simplified practice recommendation for-----	99
68	Ultraviolet solar radiation on sea and land-----	2	Wool and silk, combination of, with positive and negative ions-----	33
103	Utility commission engineers, conference of State-----	76		
123			X-----	
2	V-----		X-ray tubes, high voltage, comparison of-----	96
106	Vapor lock-----	17	X-ray tubes, thick-walled, operation of, on rectified potentials-----	15
112	Vapor pressure of automotive diesel fuels-----	40	X-rays generated by voltages of different wave form, comparison of-----	84
64	Vapors, saturated, specific volumes of-----	112		
112	Viscosity of optical glass-----	72	Y-----	
82	Viscosity of sulphuric-acid solutions-----	63	Yellow colors, saturation scale for-----	16
36	Vitreous enamels, thermal expansion of-----	104		
128			Z-----	
	W-----		Zinc uranyl acetates, alkali, optical and crystallographic properties of-----	114
76	Walls, masonry, dampness on-----	107		
17	Water from natural sources, variation in isotopic composition of-----	81		
29				
6				
106				
50				
63				
21				
46				
61				
116				
107				
32				
74				
129				
43				
33				
63				
2				
121				
75				
68				